

REMARKS

In the office action, claims 32-40 were rejected under 35 U.S.C. §112, first paragraph. That recitation has been removed from the claims and is described in the paragraph spanning pages 74 and 75 with particular reference to the first two lines on page 75. The revised claims recites "round trip delay information" as specifically recited on that page of the specification. Claims 32-40 were rejected under 35 U.S.C. §103, second paragraph, as being indefinite, appropriate revisions to claims 32, 37 and 39 have been made. Claims 32 and 40 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,614,914 (Bolgiano) in view of U.S. Patent No. 5,508,708 (Ghosh) and also under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,365,544 (Schilling) in view of U.S. Patent No. 5,600,706 (Dunn) and U.S. Patent No. 5,508,708 (Ghosh). Applicants respectfully traverse this rejection based on the following.

The present invention provides an inventive and efficient procedure and units for locating a mobile terminal. A first spectrum signal is received and despread using an associated code at a mobile terminal. A delayed lock loop adjusts the timing of the associated code of the spread spectrum signal and a clock pulse. A second spread spectrum signal is transmitted in response to the adjusted time of the clock pulse and the adjusted timing of the associated code of the first spread spectrum signal. At a different base station, the second signal is received and it is

despread using an associate code of that second signal. The timing is synchronized by using a delayed lock loop. A timing of the associated code of the first spread spectrum signal used for transmission in the second spread spectrum signal and the associated code product to despread the received second signal are compared, to determine a time delay. Ghosh uses a totally different approach. The mobile terminal in Ghosh uses more of an absolute timing. The mobile terminal receives signals from multiple based stations and compares them to an internal absolute reference. See in particular Column 4, Lines 25-65. The comparison of the multiple base station signals to this absolute reference is used to determine essentially time differences of arrival for use in geolocationn. At column 5, lines 36-44, this timing reference is transmitted to the a base station. Also, at column 7, lines 8-49 describes another embodiment where the transmission time of a particular chip transmitted from the subscriber unit in the subscriber's PN sequence is determined and that absolute time period is transmitted to the base station.

The present invention provides for a much more efficient approach to performing this. Instead of using an absolute timing at the subscriber unit, the timing of the subscriber is effectively adjusted. The delay lock loop tracks the timing of the received signal and a clock pulse is adjusted accordingly. This clock pulse is used to adjust the timing of the transmitted signal. At the base station, the timing of the codes of the transmitted first signal and the received second signal, as

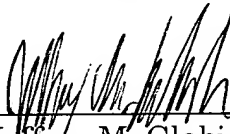
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time adjusted by delayed lock loop, are compared to get the round trip delay. This approach is totally different than Ghosh which would actually transmit the signal from the subscriber unit along with some absolute time adjustment. Accordingly, the present invention provides a more efficient mechanism and less cumbersome approach to determined he delay information.

Reconsideration and entry of this amendment is respectfully requested.

Respectfully submitted,

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